APHIS' ERADICATION & CONTROL PROGRAMS

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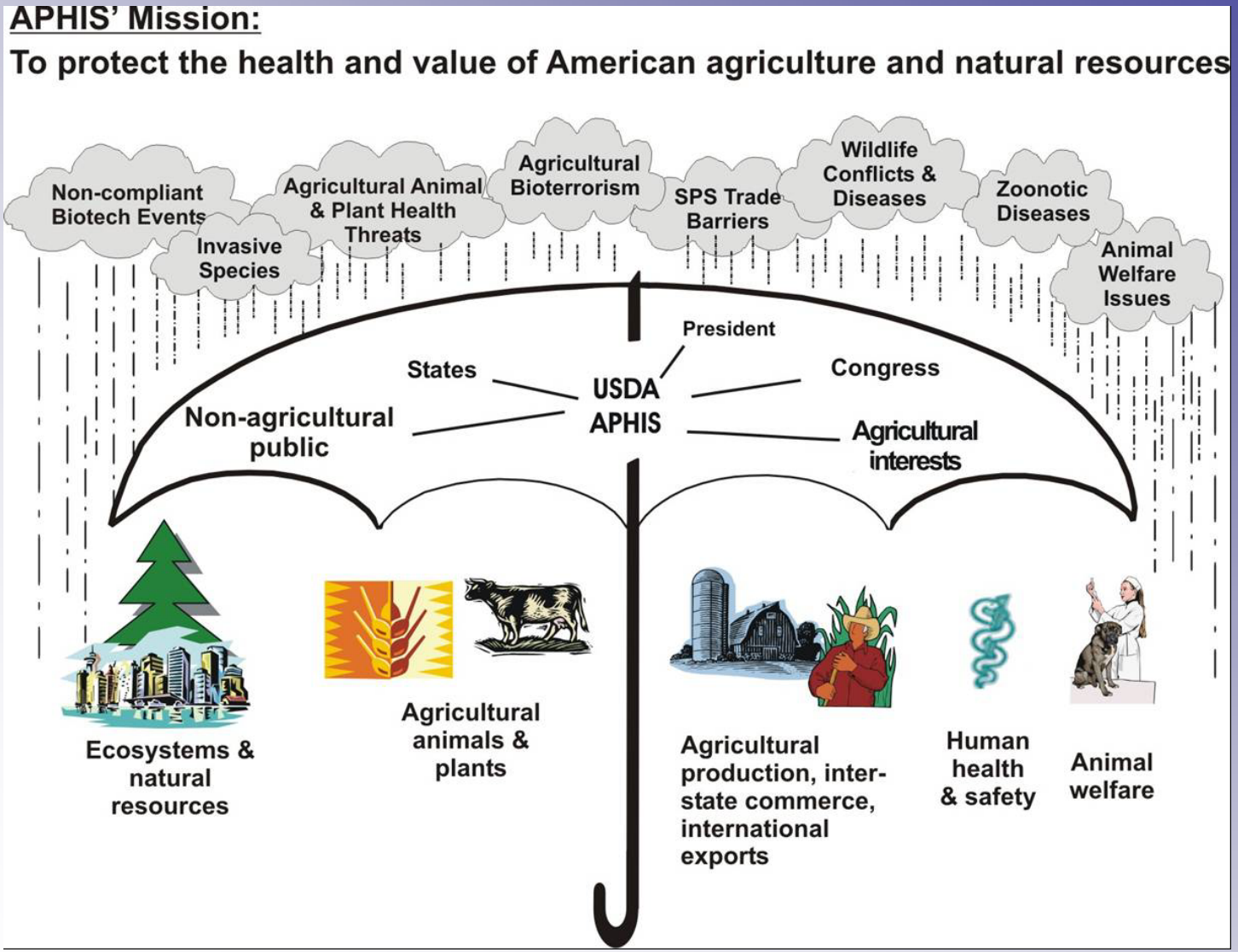
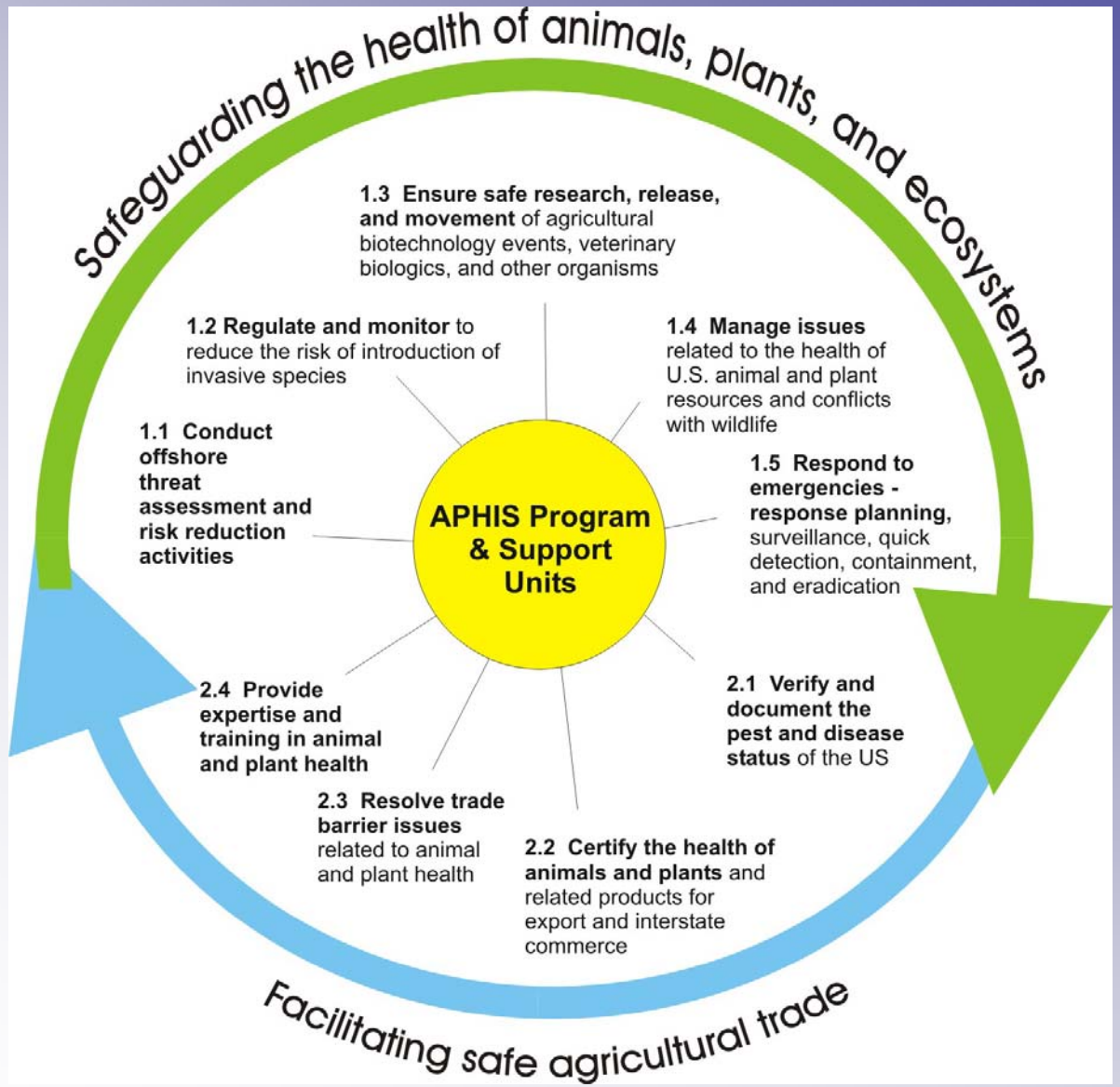
APHIS Mission Reflects Breadth of Activities



APHIS New Strategic Plan



ERADICATION VS. CONTROL: *A Definition*

If we are trying to eliminate a pest or disease from a target area, we have an eradication program.

If we are trying to prevent or reduce the spread of a pest or disease, we have a control program.

A control program could evolve into an eradication program.

An eradication program could retreat to become a control program.

ERADICATION PROGRAMS: *"Category One"*

- Foreign incursion or threat of one
- Sudden resurgence/spread
- "List A": officially and unofficially
- Proven or suspected to be devastating
- Often export markets are at risk
- Proven or experimental technology
- Heavy or lead Federal involvement
- Emergency transfer funding
- Quick decision
- Beneficiaries very clear

ERADICATION PROGRAMS: *"Category Two"*

Endemic Pest or Disease

- **More proof of costs/benefits of eradication**
- **Proven technology**
- **Heavy State and Industry involvement**
- **Regularly appropriated funds and industry contributions**
- **Deliberate decision making**
- **Convinced that is cheaper to eradicate than to live with it**
- **Beneficiaries somewhat clear**
- **Beneficiaries effectively communicate need**

CONTROL PROGRAMS

- **Eradication is not feasible**
  - ⇨ **Lack of technology, authority**
    - ⇨ **Too costly in dollars, environmental costs**
      - ⇨ **Too costly in public acceptance**

- **Convinced that it is cheaper to live with it than to eradicate it**

- **Beneficiaries less clear**

- **Beneficiaries less effectively communicate need**

ERADICATION PROGRAMS: *"Category One"*

($ MILLIONS)

	FEDERAL[1/]	COOPERATORS
Fruit Flies	217.9	184.1 (est.)
Hog Cholera	95.1	50.1
Exotic Newcastle Disease	270.9	NA
African Swine Fever	24.6	NA
Avian Influenza	235.1	16.1
Citrus Canker	266.9	177.3
Karnal Bunt	74.7	2.1
Plum Pox	25.9	10.2
ALB	97.8	12.5

1/ Total program budget

ECONOMIC INFORMATION ON DISEASE INCIDENCE

Disease	Estimated Cost to Producers and Consumers
African Swine Fever	$697 million (Iowa size epidemic, 1982-1984 dollars)
BSE in U.K.	$6.7 billion
FMD in U.K.	$4.9 billion
FMD in U.S.	$14 billion (estimated decrease in farm income)
Avian Influenza	$745 million (estimated impact from 1983-84 outbreak)

CITRUS CANKER - Florida

Estimated lost revenue from early fruit droppage if citrus canker were to become endemic in Florida.

•Early/ mid-season oranges	$80 - $160 per acre
•Valencia oranges	$31 - $69 per acre
•Seedless grapefruit	$69 - $137 per acre

Source: Ron Muraro, U. Florida, IFAS

CITRUS CANKER - Florida

Estimated economic impact if citrus canker were to become endemic in Florida.

•Early / mid-season oranges	$183 - $315 per acre
•Valencia oranges	$134 - $233 per acre
•Seedless grapefruit	$229 - $350 per acre

Source: Ron Muraro, U. Florida, IFAS

CITRUS CANKER - California

- **Total losses for all citrus producers and consumers in California would range from $173 million to $890 million**

- **For all US producers and consumers total welfare losses would be over $5 billion**

Source: Jetter, Sumner, and Civerole, UC Davis Agricultural Issues Center

HOG CHOLERA

- 1961-1976
- Discounted Benefits = $2.9 billion
  ($9.3 billion in 2003 dollars)
- Discounted Costs = $140 million
  ($452 million in 2003 dollars)

KARNAL BUNT

- **Annual net welfare effects ranged from $261 million for 10% loss in exports to $976 million for a 50% reduction in exports**

- **Over 10 year period, discounted welfare effect range from $2.1 billion to $7.8 billion**

Source: Glauber and Narrod, AEI-Brookings Joint Center for Regulatory Studies

ERADICATION PROGRAMS: *"Category Two"*

($ MILLIONS)

	FEDERAL 1/	COOPERATORS
Brucellosis	1,881.4	2,408.5
Screwworm	908.4	143.7
Boll Weevil	308.5	714.2
Pseudorabies	273.3	154.2
Tuberculosis	317.3	398.7

1/ Total program budget

BOLL WEEVIL

- **Boll Weevil eradicated from over 5 million acres**
- **VA, NC, AL, FL, GA, SC, TX, AZ, CA have virtually eliminated insecticide applications for boll weevil**

BOLL WEEVIL - Georgia

- **Average acreage increased from 228,000 acres to 770,000 acres**
- **Average gross crop revenues increased from $70 million to $400 million**
- **Net crop revenues increase from $187 to $451 per acre**

Source: Haney, Lewis, and Lambert, University of Georgia, 1996.

BOLL WEEVIL - Georgia

- **Net producer benefits of eradication program in Georgia are $88.73 per acre**

- **482 lbs./acre 1971-1986 (pre-eradication)**
- **733 lbs./acre 1991-1995 (post-eradication)**

Source: Haney, Lewis, and Lambert, University of Georgia, 1996.

BRUCELLOSIS

- **Net consumer and producer benefits over the life of the brucellosis eradication program (1978-2000) are estimated to be $696 million**

SCREWWORM

- **Benefits to U.S. producers estimated to be $900 million per year**
- **Mexican producers and consumers saved about $2 billion from 1972 to 1991**

SCREWWORM

- 1958 – 1986
- Discounted benefits = $2.8 billion
- Discounted costs = $240 million

SCREWWORM

- Direct benefits to Central American livestock producers = $73 million per year
- Overall economic benefits to region = $257 million per year
- Benefits to Mexico estimated to be $275 million per year from 1991 to 1994

CONTROL PROGRAMS

($ MILLIONS)

	FEDERAL 1/	COOPERATORS
Gypsy Moth	140.2	184.6
Grasshopper	158.8	63.9
Witchweed	101.2	6.8
Imported Fire Ants	98.4	107.8
Cattle Ticks	174.6	56.7

1/ Total program budget

GYPSY MOTH – Slow The Spread

- 1999 national implementation of “Slow the Spread”
- Decrease area invaded from 15,600 sq. miles per year to 6,000 sq. miles per year
- Protect forests, forest industries, urban and rural parks, protect private property
- Avoid $22 million per year in damage and management costs

Source: USDA Forest Service

WITCHWEED

- **Could reduce corn yield by 10%**

- **Yield losses and control costs could cost U.S. corn producers $3.45 billion per year if witch weed were established throughout the U.S.**

- **Yield losses and control costs in NC and SC could cost $36.5 million if witchweed were to spread throughout those two states**

Source: Mike Livingston, USDA-APHIS Regulatory Flexibility Analysis

WITCHWEED

- **1956 450,000 Infested acres**
- **2001 4,000 infested acres**
- **South Carolina corn yields restored to pre-infestation levels by 1964**
- **Reduced program budget beginning in 1969 hindered ability to complete eradication**

Source: Mike Livingston, USDA-APHIS Regulatory Flexibility Analysis

Q&A's